

# Chart Sources

## ECDIS Vector Chart Reference Cards

The [US Chart No 1 from 2013](#) is updated and includes full ECDIS reference.

An even better alternative is the new book [Electronic Chart Navigation](#) by David Burch, with annotated ECDIS Chart No 1.

Anyone using official vector charts should have one of these on board.

## Chart Downloader - Get started quickly

The [Chart Downloader Tab-Plugin](#), included with Opencpn will help you to download, update and organize almost all free chart sources described below.

## ChartDownloader has NOAA Charts

- [NOAA's Chart Download website](#)
- [NOAA ENC USA Charts](#)
- [NOAA RNC USA Charts](#)
- [NOAA IENC USA Inland Marine Charts](#)

## Free Nautical Chart Sources

- [NOAA's Chart Downloads](#) For those interested in U.S. waters, raster charts and S57 vector charts are available as free downloads from NOAA. Find all NOAA charts, both raster (RNC) and vector (ENC) charts, for your region through [NOAA OCS Website](#) . US charts cover a wide area, apart from the mainland states, Puerto Rico, the US Virgin Island, the Hawaiian Island chain as far as Midway Island, American Samoa, Guam and the Northern Marianas Islands are all included.
- [Official Inland Electronic Navigation Charts \(IENC\) by US Army Corp of Eng - U.S. Inland Waterways and AWS IENC Download Link](#)
- [Argentinian Charts](#) Free raster charts (RNC) for a large part of their coast as well as parts of Antarctica: Note that the downloadable “zip” files actually are “rar” files.
- [Brazilian Charts - Cartes Raster- Centro de Hidrografia da Marinha](#) publishes free raster charts (RNC) for their whole coast and new charts for inland waters are published regularly. There is also coverage for part of Antarctica.
- [New Zealand](#) now publishes free BSB3 raster charts, as of 2013-11-22 NZ has moved away from a proprietary UKHO encrypted format, to the, de facto, standard BSB format. NZ charts cover most of the Pacific in small scale charts, as well as the Southern Ocean, down to Antarctica, South of New

Zealand. Detailed charts for the Kermadec Islands, Cook Islands, Niue, Tonga, Western Samoa and the Tokelau Islands, are included.

- [NZ charts compiled by Marco Certelli](#) includes a better coverage of the Tonga/Samoa area. The official version does not include charts with soundings in fathoms, for example.
- [East Asia Hydrographic Commission](#) provides free offshore S57 vector charts for the South China Sea. See the Note at the bottom of this section.
- [Colombia](#) and [Australia](#) publish sample S57 single charts.
- Many **European** countries publish free S57 ENC charts for their Inland Waterways:
  - [Austria](#)
  - [Belgium](#)
  - [Bulgaria](#)
  - [Croatia](#)
  - [Czech Republic](#)
  - [France](#)
  - [Germany](#)
  - [Hungary](#)
  - [Netherlands-also lists other Euro](#)
  - [Poland](#)
  - [Romania](#)
  - [Serbia](#)
  - [Slovakia](#)
  - [Switzerland](#)
- [Danube Portal - European Inland ENC](#) May already be in ChartDownloader
- [European Waterways s57 List](#) May already be in ChartDownloader
- [Ukraine](#) offers some non-calibrated char downloads
- [US Pilot](#) are BSB charts
- [OpenSeaMap.org](#) project publish raster charts in many formats (including KAP which work with OpenCPN). This project relies on mariners to survey their local waters and upload their data using the OpenStreetMap database and editing tools. This project is still in its infancy, so only a few areas have been mapped to any extent. Currently only sea-marks are displayed, but it is planned to include depth & other data in due course.

## GSHHG Background Charts

### [GSHHG A Global Self-consistent, Hierarchical, High-resolution Geography Database](#)

- GSHHG Background Map (Low Res) is included in the installation package, used by Opencpn.
- Under macOS, by default is installed in Contents/SharedSupport/gshhs/ subfolder of the application bundle. For MacOS it is installed in Contents/SharedSupport/gshhs/subfolder of the application bundle.
- Path to this dataset is stored in the *BasemapDir configuration* key in *opencpn.ini*. As long as it points to Contents/SharedSupport/gshhs/, replacing the content of Contents/SharedSupport/gshhs/ makes OpenCPN use it. If *BasemapDir* points somewhere else, it is not going to be used.
- If GSHHG data is pointed to a chart folder, it is detected and *BasemapDir* is changed to point to

that location.

- Basemap is always displayed, regardless of chart groups.
- Keep your GSHHG dataset up to date using *ChartDownloader*.

## Chart DownLoader has High Res GSHHG

GSHHG High Resolution Background Maps can be obtained using the integrated **Chart Downloader Plugin**.

Use High Resolution GSHHG with **Watchdog\_pi** Landfall alarms and WeatherRouting\_pi for Land detection. Highly Recommended.

Go to **Options > Charts > Chart Downloader** and Pick **Add** a new Catalog and pick the predefined basemap **GSHHG basemap** and then **All GSHHG Basemaps**.

Then check, and if desired, change the destination path name to suite your liking. (You may add a GSHHG folder under your Charts directory, which is the most effective location. I do this without any trouble.) Then select OK and proceed with downloading and "Apply". Remember to add a Chart Directory "GSHHG" and to add the path to the GSHHG folder.

## OpenSeaMap for OpenCPN

[KAP Charts from OpenSeaMap for OpenCPN](#) Each chart bundle contains several hundred charts in different scales from overview to harbour charts: Baltic Sea, British Channel, Mediterranean Sea West, Mediterranean Sea East, Adriatic, Gulf of Biscay, North Sea, Carribean, South China Sea, East China Sea, South Pacific, Magellan Strait, West Coast US, Northwest Passage, North Atlantic, Dutch Inland Waters, Great Lakes, Bay of Bengal.

[OpenSeaMap Forum](#)

## Other Charts

- [Scotland Antares Charts](#) are producing a lot of very large scale charts covering "The West Coast of Scotland". All platforms. These charts are available in many formats, including BSB3. A nominal sum is charged for the charts, to support this impressive effort by unqualified enthusiasts.
- [Dutch Topographical Maps](#)
  - by the Dutch Registry Service with datum reprojected to WGS84 and .tiffs > .kap
  - Work with OpenCPN.
  - The maps are Dutch topographical maps administered by the Dutch Land Registry Service (het Kadaster.)
  - They also hold the copyright but under that right the maps are free to use also in applications by anyone
  - (IMHO it's legally about the same construction as you guys have with your National Library

stuff.)

- Those maps, albeit with a different map datum (EPSG:28992) can be downloaded by every one with a descent on line connection.
- What I did was reproject the maps from EPSG:28992 (Dutch triangulation grid, Schreiber's projection) to EPSG:4326 (WGS84) and then produce .kap files out of the .tiffs.
- The maps are available in a RAR file under this link:  
<https://www.pythonplace.nl/uploads/kapkaarten.rar>
- Compliments of Jan van Hooff. Enjoy!

## Nautin-NL

- Layerdata as GPX files (and much more) is also available from nautin.nl. Nautin is a foundation (no profit) and a lot of volunteers who keep their data uptodate.
- Nautin has a straight communication line with the buoy-laying-vessels. Therefore their information is 2-3 weeks ahead of the official NtM's
- One of my favorites is a infrared aerophoto combined with uptodate buoys.
- Most data on Nautin.nl is free, only for the buoys they ask a "membership" and a fee.

# Licensed Commercial Nautical Charts for OpenCPN

## All platforms

- [o-charts.org](https://o-charts.org) is the chart outlet of OpenCPN for OpenCPN. Created as part of OpenCPN to provide users with reliable and up-to-date charts from recognized sources at a reasonable cost for regions where free and quality charts are not available.

o-charts.org provides chart sets in vector and raster format - **oeSENC** and **oeRNC** - and **S-63** support.

For information about the actual coverage and available charts go here: <https://o-charts.org>

- **oeSENC** (or *oeEVC*) charts are vector charts licensed from official bodies for OpenCPN and distributed in a OpenCPN proprietary format. They are covering areas without free charts like the US or EU Inland waters.  
*oeSENC* sets are based on S-57, released in an easy to digest format for OpenCPN (ocpn encrypted SENC). *oeSENC* charts deliver the same content as official charts, however they can't be called "official" as no Hydrographic Office has ear-marked them. For update frequencies, please visit the o-charts product pages. Requires the [oeSENC Plugin](#).
- **oeRNC** Raster charts are sourced from editors covering sailing regions where vector charts are not available or are lower quality than the alternative raster sources.  
Leaving it up to the sailor to decide which chart set suites his requirements. We want to serve sailors preferring raster over vector as well.  
*oeRNC* charts are licensed and encrypted for OpenCPN.  
Requires the [oeRNC plug-in](#)
- **S63 Encrypted ENC charts** . Worldwide coverage available. These are the official vector charts commercial ships are using. For vessels bound to carriage requirements.

Detailed coverage of popular cruising grounds is not always available. Commercial shipping maps have prices for parties making business sailing - don't be surprised.

[Chartworld.com](https://www.chartworld.com) is a recommended source. A good idea for punctual coverages. When licensing consider to play with licensing periods. Often 3 months will suit your needs.

Requires the S-63 plug-in and a S-63 UserPermit.

## Other sources

- [Canadian Raster Charts](#). Canadian Raster charts in BSB3 format that works on OpenCPN for all platforms without a plugin .
- [Datacharter](#) - a Dutch company, offers the entire set of "1800"-series nautical charts for the Netherlands as KAP-files for use in OpenCPN. These charts cover the Dutch coastal zone of the Northsea and Belgium (including the Zeeland estuaries and the Westerschelde river up to Antwerp), the Waddensea up to the island of Norderney in Germany and the Dutch IJsselmeer and adjacent ports and waters. The charts are locked by means of your own personal code, but once unlocked can be used on all your devices running OpenCPN.
- [VisitMyHarbour - ChartSticks](#) and [OpenCPN Unified Charts](#) a virtual DVD version of our legacy ChartSticks, covering UK, Ireland, Belgium, Netherlands, Spain (including the Canary Islands) and Portugal (including Madeira and the Azores) with UKHO rastercharts, updated yearly. New for 2015 is a coverage of the French coast from Dunkirk to Brest through large scale SHOM charts on some USB sticks.
- [NV-Charts](#) has an extensive coverage of both sides of the North Atlantic. The Windows only [NV-Charts Plugin](#) is needed.

## Deprecated sources

- [Fugawi-charts for Opencpn](#). Fugawi charts are not available after Friday, November 30, 2018. Charts already installed on your system are still working using the ofc\_pi plugin (Fugawi). Fugawi support for charts bought in 2018 is available until 12.2019.
- [Hydrographica](#) a Swedish company produces large scale BSB3 charts for some popular local areas, based on their own surveys. Raster charts were available until the end of 2018 from Fugawi via the Fugawi plugin but that service has ended. See above. Hydrographica are though offering BSB3 rasters from their own site but due a comment on there's site no longer than 2020. OpenCPN future support for Hydrographica's chart may not be closed forever. Stay tuned on the Forum for any news on this topic.
- [Soltek.se](#) Selling BSB3 raster charts for Finland. This supplier has stopped issuing charts for Sweden since January 2019.

## Making your own charts

- refer to the next section of the manual: **Advanced Chart Work**

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